

**Lesson:** History of Respiratory Disorders

**Course:** Gr. 11 Biology, University

**Unit:** Animals: Structure and Function

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## Big Ideas

## Learning Goals

### Overall Expectations

*E3. demonstrate an understanding of animal anatomy and physiology, and describe disorders of the respiratory, circulatory, and digestive systems*

*E1. analyse the relationships between changing societal needs, technological advances, and our understanding of internal systems of humans*

### Specific Expectations

*E3.4 describe some disorders related to the respiratory, digestive, and circulatory systems (e.g., asthma, emphysema, ulcers, colitis, cardiac arrest, arteriosclerosis)*

## Prior Knowledge

## Required Materials

- Laptops or Book computer lab
  - Access to Internet and library resources
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## BEFORE – Minds On (~10 min)

**Teacher:** Lesson Agenda and Big Ideas on Board (chalkboard outline)

**Activity:** Entrance Card

- Quick review question about respiratory system (previous lessons).
- Something(s) you know about respiratory disorder? (Can be specific to disease or general)
- Something(s) you are wondering about respiratory disorder?
- Other ideas???

**Rationale for T/L strategy:**

- Clarify the Action/Task
  - Assesses prior knowledge and readiness, assessment for learning
  - Allows gradual recall of information
  - Allow teacher to identify and challenge student misconceptions
  - Make connections between prior knowledge and new knowledge that is to be learned
  - Assessment *for* Learning
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## DURING – Directed Learning and Collaborative Learning (~45 min)

**Directed Learning:** Short PowerPoint Presentation on Hx of Pulmonology (3 min max.)

- Branch of internal medicine – dealing with diseases of the respiratory tract
- Pulmonary circulation discovery – pioneered research and study of respiratory system and study of disease
- Introduce disorders/diseases of interest for lesson

**Collaborative Learning:** Jigsaw on History of Respiratory Related Diseases

Diseases: tuberculosis, asthma, CF, emphysema, influenza, common cold, asbestos-related disease, allergies, pulmonary fibrosis

Home groups of 4 or 5, each member chooses a respiratory-related disease to study (from a list), join “expert” groups to investigate:

- Disease Overview (biological, social)
- Historical Significance (Canada and globally)
- Historical vs. Present Prevalence
- Historical vs. Present Treatment(s)
- Major breakthroughs?
- Any other significant information?

“Experts” from each disease group return to home groups to share learning.

Opportunity for formative assessment (cooperative work, work habits, etc.)

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### **AFTER – Consolidation (~10 min)**

**Activity:** Class Discussion (brief and student-lead)

- Main findings?
- Anything in particular that stood out to you/you would like to share with the class?

#### **Exit Card**

- Something(s) new learned?
- Something(s) still wondering about?
- Star and a Wish
- Anything else...

Assessment for and as learning